1647

RECEIVED
JUN 2 8 2002
TECH CENTER 1600/29(

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	GORMAN ET AL.	Examiner:	UNKNOWN
Serial No.:	09/997,868	Group Art Unit:	1647
Filed:	NOVEMBER 28, 2001	Docket:	11669.103USW3
Confirmation No.:	6177		

OIPE JC16 JUN 25 2002 PATENT & TRADEMARK OFFICE

Title: PROHORMONE CONVERTASE TRANSFORMED CELLS AND POLYPEPTIDE SYNTHESIS

CERTIFICATE UNDER 37 CFR 1.8:
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on June 21, 2002.

By: Kay C Fahland
Name: Kay Fahland

Commissioner for Patents
Washington, D.C. 20231

Sir:

We are transmitting herewith the attached:

☒ Transmittal Sheet in duplicate containing Certificate of Mailing
☒ Information Disclosure Statement, Form 1449, ~~15~~ 21 Reference(s)
☒ Return postcard

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers or any future reply, if appropriate. Please charge any additional fees or credit overpayment to Deposit Account No. 13-2725. A duplicate of this sheet is enclosed.

MERCHANT & GOULD P.C.
P.O. Box 2903, Minneapolis, MN 55402-0903
612.332.5300

23552
PATENT TRADEMARK OFFICE

By: Katherine M Kowalchyk
Name: Katherine M. Kowalchyk
Reg. No.: 36,848
KMK:PSTjvd

S/N 09/997,868 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	GORMAN ET AL.	Examiner:	UNKNOWN
Serial No.:	09/997,868	Group Art Unit:	1647
Filed:	NOVEMBER 28, 2001	Docket No.:	11669.103USW3
Title:	PROHORMONE CONVERTASE TRANSFORMED CELLS AND POLYPEPTIDE SYNSTHESIS		

CERTIFICATE UNDER 37 CFR 1.8:
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on June 21, 2002.

By: Kay Fahland
Name: Kay Fahland

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(b))

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted before the mailing date of a first Office Action on-the-merits. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(d), a copy of each document or other information listed on the enclosed Form 1449 is not provided because it was previously cited by or submitted to the U.S. Patent and Trademark Office in parent application, U.S. Serial No. 08/026,143 filed on March 1, 1993.

Canadian Patent Application No. 2,069,929 was cited by a foreign Patent Office in a related application within the last three months.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: June 21, 2002

Katherine M. Kowalchyk
Reg. No. 36,848
KMK:PSTjvd

Date Mailed: June 21, 2002

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,267,101	05/12/1981	Bigazzi			
	4,396,601	08/02/1983	Salser et al.			
	4,399,216	08/1983	Axel et al.			
	4,431,740	02/1984	Bell et al.			
	H245	04/1987	Bahl			
	4,792,602	12/1988	Narang et al.			
	4,914,026	04/1990	Brake et al.			
	4,970,154	11/13/1990	Chang			
	5,104,652	04/14/1992	Houghton et al.			
	5,077,204	12/03/1991	Brake et al.			
	5,298,422	03/1994	Schwartz et al.			
	5,304,473	04/1994	Belagaje et al.			
	5,427,940	06/1995	Newgard			
	5,460,950	10/1995	Barr et al.			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	253,314	01/20/1988	EP				
	327,377	08/09/1989	EP				
	319,944	06/14/1989	EP				
	220,689	05/06/1987	EP				
	324,274	07/19/1989	EP				
	WO 91/18988	12/12/1991	PCT				
	307,247 A2	03/15/1989	EP				
	068,375	05/01/1983	EP				
	101,309	02/22/1984	EP				
	112,149	06/27/1984	EP				

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

Date Mailed: June 21, 2002

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO 92/21756	12/10/1992	PCT				
	WO 91/12329	08/22/1991	PCT				
	616,201	05/25/1989	AU				
	WO 90/15863	12/27/1990	PCT				
	WO 91/15580	10/17/1991	PCT				
	WO 92/21979	12/10/1992	PCT				
	WO 91/06314	05/16/1991	PCT				
	WO 91/02540	03/07/1991	PCT				
	WO 93/11247	06/10/1993	PCT				
	WO 90/06997	06/28/1990	PCT				
✓	2,069,929		CA				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	Seidah, et al., "cDNA sequence of two distinct pituitary proteins homologous to kex2 and furin gene products: tissue-specific mRNAs encoding candidates for pro-hormone processing proteinases", DNA and Cell Biology, 9(6):415-424 (1990)
	Davidson et al., "Intraorganellar calcium and pH control proinsulin cleavage in the pancreatic B cell via two distinct site-specific endopeptidaes" Nature, 333:93-96 (1988)
	Loh et al., "Purification and characterization of a Paired Basic Residue-specific Pro-opiomelanocortin Converting Enzyme from Bovine Pituitary Intermediate Lobe Secretory Vesicles" J. Biol. Chem., 260(12):7194-7205 (1985)
	Thorne et al., "Expression and Processing of Mouse Proopiomelanocortin in Bovine Adrenal Chromaffin Cells", J. Biol. Chem., 266(21): 13607-13615 (1991)
	Thorne et al., "An *in vivo* characterization of the cleavage site specificity of the insulin cell prohormone processing enzymes", J. Biol. Chem., 265(15):8436-8443 (1990)
	Brennan et al., "The Processing of Human Proinsulin and Chicken Proalbumin by Rat Hepatic Vesicles Suggests a Convertase Specific for X-Y-Arg-Arg or Arg-X-Y-Arg Sequences", J. Biol. Chem., 266(32):21504-21508 (1991)
	Docherty et al., "Proinsulin Endopeptidase Substrate Specificities Defined by Site-directed Mutagenesis of Proinsulin", J. Biol. Chem., 264(31):18335-18339 (1989)
	Watanabe et al., "Sequence Requirements for Precursor Cleavage within the Constitutive Secretory Pathway", J. Biol. Chem., 267(12):8270-8274 (1992)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

*Substitute Disclosure Statement Form (PTO-1449)

Date Mailed: June 21, 2002

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Noel et al., "Investigation of the Structural Requirements for Peptide Precursor Processing in AtT-20 Cells Using Site-Directed Mutagenesis of Proadrenocorticotropin/Endorphin", Molecular Endocrinology, 5(3):404-413 (1991)
	Gross et al., "Deletion of a highly conserved tetrapeptide sequence of the proinsulin connecting peptide (C-peptide) inhibits proinsulin to insulin conversion by transfected pituitary corticotroph (AtT20) cells", J. Biol. Chem., 264(36):21486-21490 (1989)
	Bloomquist et al., "Prohormone-converting enzymes: Regulation and evaluation of function using antisense RNA", Molecular Endocrinology, 5(12):2014-2024 (1991)
	Dickerson et al., "Cell-type specific post translational processing of peptides by different pituitary cell lines", Endocrinology, 127(1):133-140 (1990)
	Benjannet et al., "PC1 and PC2 are proprotein convertases capable of cleaving proopiomelanocortin at distinct pairs of basic residues", Proc. Natl. Acad. Sci. USA, 88:3564-3568 (1991)
	Korner et al., "Prohormone processing in Xenopus oocytes: Characterization of cleavage signals and cleavage enzymes", Proc. Natl. Acad. Sci. USA, 88:11393-11397 (1991)
	Steiner, Donald F., "Prohormone convertases revealed at last", Current Biology, 1(6):375-377 (1991)
	Kiefer et al., "Identification of a Second Human Subtilisin-Like Protease Gene in the fes/fps Region of Chromosome 15", DNA and Cell Biology, 10(10):757-769 (1991)
	Brennan et al., "Specificity of yeast kex2 protease for variant human proalbumins is identical to the *in vivo* specificity of the hepatic proalbumin convertase", J. Biol. Chem., 265(35):21494-21497 (1990)
	Christie et al., "Identification of kex-2-related Proteases in Chromaffin Granules by Partial Amino Acid Sequence Analysis", J. Biol. Chem., 266(24):15679-15683 (1991)
	Lindberg and Thomas, "Cleavage of Proenkephalin by a Chromaffin Granule Processing Enzyme", Endocrinology, 126(1):480-487 (1990)
	Fuller, R. et al., "Intracellular targeting and structural conservation of a prohormone-processing endoprotease", Science, 246:482-486 (1989)
	Paul et al., "Cell-dependent posttranslational processing and secretion of recombinant mouse renin-2", American Physiological Society, E224-E229 (1992)
	Rouille et al., "Evidence for distinct dibasic processing endopeptidases with Lys-Arg and Arg-Arg specificities in neurohypophysial secretory granules", Biochem. Biophys. Res. Comm., 183(1):128-137 (1992)
	Nagahama et al., "Sequence requirements for prohormone processing in mouse pituitary AtT-20 cells. Analysis using prorenins as model substrates", Eur. J. Biochem., 197:135-140 (1991)
	Noel et al., "Expression of porcine pro-opiomelanocortin cDNA in heterologous monkey kidney cells", J. Bio. Chem., 262(4):1876-1881 (1987)
	Barr, Philip J., "Mammalian subtilisins: the long-sought dibasic processing endoproteases", Cell, 66:1-3 (1991)
	Moore et al., "Expressing a Human Proinsulin cDNA in a Mouse ACTH-Secreting Cell. Intracellular Storage, Proteolytic Processing, and Secretion on Stimulation", Cell, 35(Part 1):531-538 (1983)

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

Date Mailed: June 21, 2002

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Yoshimasa et al., "Effects of amino acid replacements within the tetrabasic cleavage site on the processing of the human insulin receptor precursor expressed in Chinese hamster ovary cells", J. Biol. Chem., 265(28):17230-17237 (1990)
	Wise et al., "Expression of a human proprotein processing enzyme: correct cleavage of the von Willebrand factor precursor at a paired basic amino acid site", Proc. Natl. Acad. Sci. USA, 87:9378-9382 (1990)
	Nakayama et al., "Identification of the Fourth Member of the Mammalian Endoprotease Family Homologous to the Yeast Kex2 Protease", J. Biol. Chem., 267(9):5897-5900 (1992)
	Shennan et al., "Site-directed Mutagenesis and Expression of PC2 in Microinjected Xenopus Oocytes", J. Bio. Chem., 266(35):24011-24017 (1991)
	Shennan et al., "Characterization of PC2, a mammalian Kex2 homologue, following expression of the cDNA in microinjected Xenopus oocytes", FEBS, 284(2):277-280 (1991)
	Thomas, L. et al., "Kex2-like endoproteases PC2 and PC3 accurately cleave a model prohormone in mammalian cells: evidence for a common core of neuroendocrine processing enzymes", Proc. Natl. Acad. Sci. USA, 88:5297-5301 (1991)
	Smeekens, S. et al., "Identification of a human insulinoma cDNA encoding a novel mammalian protein structurally related to the yeast dibasic processing protease kex2", J. Biol. Chem., 265(6):2997-3000 (1990)
	Seidah et al., "Cloning and primary sequence of a mouse candidate prohormone convertase PC1 homologous to PC2, furin, and kex2: distinct chromosomal localization and messenger RNA distribution in brain and pituitary compared to PC2", Molecular Endocrinology, 5(1): 111-122 (1991)
	Nakayama et al., "Cloning and Functional Expression of a Novel Endoprotease Involved in Prohormone Processing at Dibasic Sites", J. Biochem., 109(6):803-806 (1991)
	Zhu et al., "Kex2-dependent processing of yeast K_1 killer preproxtoxin includes cleavage at ProArg-44", Molecular Microbiol., 6(4):511-520 (1992)
	Brenner et al., "Structural and enzymatic characterization of a purified prohormone-processing enzyme: Secreted, soluble Kex2 protease", Proc. Natl. Acad. Sci. USA, 89:922-926 (1992)
	Germain et al., "The yeast kex2-processing endoprotease is active in the Golgi apparatus of transfected NIH 3T3 fibroblasts", Molecular Endocrinology, 4(10):1572-1579 (1990)
	Thomas et al., "Yeast KEX2 endopeptidase correctly cleaves a neuroendocrine prohormone in mammalian cells", Science, 241:226-230 (1988)
	Hosaka et al., "Arg-X-Lys/Arg-Arg Motif as a Signal for Precursor Cleavage Catalyzed by Furin within the Constitutive Secretory Pathway", J. Biol. Chem., 266(19): 12127-12130 (1991)
	Mains, R.E. et al., "Cellular and molecular aspects of peptide hormone biosynthesis", Frontiers in Neuroendocrinology, 11(1):52-89 (1990)
	Hatsuzawa et al., "Structure and expression of mouse furin, a yeast Kex2-related protease", J. Biol. Chem., 265(36):22075-22078 (1990)
	Misumi et al., "Functional expression of furin demonstrating its intracellular localization and endoprotease activity for processing of proalbumin and complement Pro-C3", J. Biol. Chem., 266(25):16954-16959 (1991)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

Date Mailed: June 21, 2002

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	van de Ven et al., "Furin is a subtilisin-like proprotein processing enzyme in higher eukaryotes", Molecular Biol. Reports, 14:265-275 (1990)
	Barr, P.J. et al., "cDNA and gene structure for a human subtilisin-like protease with cleavage specificity for paired basic amino acid residues", DNA and Cell Biology, 10(5):319-328 (1991)
	Bresnahan, P.A. et al., "Human fur gene encodes a yeast kex2-like endoprotease that cleaves pro-β-NGF *in vivo*", J. Cell Biology, 111(6, Pt 2):2851-2859 (1990)
	van den Ouweland et al., "Structural homology between the human fur gene product and the subtilisin-like protease encoded by yeast KEX2", Nucleic Acids Res., 18(3):664 (1990)
	Bathurst, I.C. et al., "Yeast kex2 protease has the properties of a human proalbumin converting enzyme", Science, 235:348-350 (1986)
	Chung, K-N et al., "Molecular sorting in the secretory pathway", Science, 243:192-197 (1989)
	Docherty, K. et al., "Post-translational proteolysis in polypeptide hormone biosynthesis", Annu. Rev. Physiol., 44:625-638 (1982)
	Douglass, J. et al., "Polyprotein gene expression: Generation of diversity of neuroendocrine peptides", Annu. Rev. Biochem., 53:665-715 (1984)
	Foster, D.C. et al., "Endoproteolytic processing of the human protein C precursor by the yeast kex2 endopeptidase coexpressed in mammalian cells", Biochemistry, 30:367-372 (1991)
	Fricker, L.D. et al., "Identification of the pH-dependent membrane anchor of carboxypeptidase E (EC3.4.17.10)", J. Biol. Chem., 265(5):2476-2482 (1990)
	Frohman, M.A. et al., "Rapid production of full-length cDNAs from rare transcripts: amplification using a single gene-specific oligonucleotide primer", Proc. Natl. Acad. Sci. USA, 85:8998-9002 (1988)
	Fuller, R.S. et al., "Yeast prohormone processing enzyme (KEX2 gene product) is a Ca^{2+} dependent serine protease", Proc. Natl. Acad. Sci. USA, 86:1434-1438 (1989)
	Gorman, C.M. et al., "Transient production of proteins using an adenovirus transformed cell line", DNA Prot. Eng. Tech., 2:3-10 (1990)
	Gumbiner, B. et al., "Two distinct intracellular pathways transport secretory and membrane glycoproteins to the surface of pituitary tumour cells", Cell, 28:51-59 (1982)
	Hansell, D.J. et al., "Expression of the human relaxin H1 gene in the decidua, trophoblast and prostate", J. Clin. Endocrinol. Metabol., 72(4):899-904 (1991)
	Hudson, P. et al., "Relaxin gene expression in human ovaries and the predicted structure of a human preprorelaxin by analysis of cDNA clones", EMBO Jour., 3(10):2333-2339 (1984)
	Haley et al., "Porcine Relaxin: Molecular Cloning and cDNA Structure", DNA, 1(2):155-162 (1982)
	Julius, D. et al., "Yeast α factor is processed from a larger precursor polypeptide: the essential role of a membrane-bound dipeptidyl aminopeptidase", Cell, 32:839-852 (1983)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Julius, D. et al., "Isolation of the putative structural gene for the lysine-arginine-cleaving endopeptidase required for processing of yeast prepro-α-factor", Cell, 37:1075-1089 (1984)
	Kunkel, T.A. et al., "Rapid and efficient site-specific mutagenesis without phenotypic selection, Methods Enzymol., 154:367-382 (1987)
	Lee, C.C. et al., "Generation of cDNA probes directed by amino acid sequence: cloning of urate oxidase", Science, 239:1288-1291 (1988)
	Loh, Y.P., "Proteolysis in neuropeptide processing and other neural functions", Annu. Rev. Neurosci., 7:189-222 (1984)
	Moore, H-P et al., "Chloroquine diverts ACTH from a regulated to a constitutive pathway in AtT-20 cells", Nature, 302:434-436 (1983)
	Nishi, M. et al., "Conservation of the sequence of islet amyloid polypeptide in five mammals is consistent with its putative role as an inlet hormone", Proc. Natl. Acad. Sci. USA, 86:5738-5742 (1989)
	Redding, .K. et al., "Immunolocalization of kex2 protease identifies a putative late Golgi compartment in the yeast Saccharomyces cerevisiae", J. Cell. Biol., 113(3):527-538 (1991)
	Sherwood, O.D., "Relaxin", Knobil E., Neill J. (eds) The Physiology of Reproduction, Raven Press, New York, Chap. 16, pp. 585-673 (1988)
	Smeekens, S.P. et al., "Identification of a cDNA encoding a second putative prohormone convertase related to PC2 in AtT-20 cells and islets of Langerhans", Proc. Natl. Acad. Sci. USA, 88:340-344 (1991)
	Stults, J.T. et al., "Structural Characterization by mass spectrometry of native and recombinant human relaxin", Biomed Environ. Mass Spectrom, 19:655-664 (1991)
	Zollinger, L. et al., "Intracellular proteolytic processing of proopiomelanocortin in heterologous COS-1 cells by the yeast KEX2 endoprotease", Biochem. Cell Biol., 68:635-640 (1990)
	Angeletti, R.H. et al., "Amino acid sequences of mouse 2.5S nerve growth factor. II. Isolation and characterization of the thermolytic and peptic peptides and the complete covalent structure", Biochemistry, 12(1):100-115 (1973)
	Benore-Parsons, M. et al., "Substrate phosphorylation can inhibit proteolysis by trypsin-like enzymes", Arch. Biochem. Biophys., 272(2):274-280 (1989)
	Berger, E.A. et al., "Evidence for pro-β-nerve growth factor, a biosynthetic precursor to β-nerve growth factor", Proc. Natl. Acad. Sci. USA, 74(9):3647-3651 (1977)
	Cohen, S., "Purification of a nerve-growth promoting protein from the mouse salivary gland and its neuro-cytotoxic antiserum" Proc. Natl. Acad. Sci. USA, 46:302-311 (1960)
	Ernfors, P. et al., "Molecular cloning and neurotrophic activities of a protein with structural similarities to nerve growth factor: developmental and topographical expression in the brain", Proc. Natl. Acad. Sci. USA, 87:5454-5458 (1990)
	Gray, A.M. et al., "Requirement for activin A and transforming growth factor-β1 pro-regions in homodimer assembly", Science, 247:1328-1330 (1990)
	Hohn, A. et al., "Identification and characterization of a novel member of the nerve growth factor/brain-derived neurotrophic factor family", Nature, 344:339-341 (1990)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Hohn, K.R. et al., "Molecular cloning of a human gene that is a member of the nerve growth factor family", Proc. Natl. Acad. Sci. USA, 87:8060-8064 (1990)
	Leibrock, J. et al., "Molecular cloning and expression of brain-derived neurotrophic factor", Nature, 341:149-152 (1989)
	Levi-Montalcini et al., "Destruction of the sympathetic ganglia in mammals by an antiserum to a nerve-growth protein", Proc. Natl. Acad. Sci. USA, 46:384-391 (1960)
	Maisonpierre, P.C. et al., "Neurotrophin-3: a neurotrophic factor related to NGF and BDNF", Science, 247:1446-1451 (1990)
	Pan, L.C. et al., "The propeptide of rat bone γ carboxyglutamic acid protein shares homology with other vitamin K-dependent protein precursors", Proc. Natl. Acad. Sci. USA, 82:6109-6113 (1985)
	Powell, S.K. et al., "Efficient targeting to storage granules of human proinsulins with altered propeptide domain", J. Cell Biol., 106:1843-1851 (1988)
	Rosenthal, A. et al., "Primary structure and biological activity of a novel human neurotrophic factor", Neuron, 4:767-773 (1990)
	Saiki, R.K. et al., "Enzymatic amplification of β-globin genomic sequences and restriction site analysis for diagnosis of Sickle Cell Anemia", Science, 230:1350-1354 (1985)
	Scott, J. et al., "Isolation and nucleotide sequence of a cDNA encoding the precursor of mouse nerve growth factor", Nature, 302:538-540 (1983)
	Selby, M.J. et al., "Cobra nerve growth factor: structure and evolutionary comparison", J. Neurosci. Res., 18:293-298 (1987)
	Sevarino, K.A. et al., "Amino-terminal sequences of prosomatostatin direct intracellular targeting but not processing specificity", Cell, 57:11-19 (1989)
	Steiner, D., "Proteolytic processing of secretory proteins", Schmitt et al., eds. Molecular Genetic Neuroscience, New York, Raven Press, 149-159 (1982)
	Wise, R.J. et al., "The propeptide of von Willebrand factor independently mediates the assembly of von Willebrand multimers", Cell, 52:229-236 (1988)
	Johnson, I.S., "Human insulin from recombinant DNA technology", Science, 219:632-637 (1983)
	Selden et al., "Regulation of human insulin gene expression in transgenic mice", Nature, 321:525-528 (1986)
	Thorens et al., "Molecular physiology of glucose transporters", Diabetes Care, 13(3):209-218 (1990)
	Bell et al., "Molecular Biology of Mammalian Glucose Transporters", Diabetes Care, 13(3):198-208 (1990)
	Cuif et al., "Elements Responsible for Hormonal Control and Tissue Specificity of L-Type Pyruvate Kinase Gene Expression in Transgenic Mice", Mol. and Cell. Biology, 12(11):4852-61 (1992)
	Carroll et al., "A mutant human proinsulin is secreted from islets of Langerhans in increased amounts via an unregulated pathway", Proc. Natl. Acad. Sci. USA, 85:8943-8947 (1988)
	Quinn et al., "Intracellular Transport and Sorting of Mutant Human Proinsulins that Fail to Form Hexamers", Journal of Cell Biology, 113:987-996 (1991)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Rinderknecht, et al., "The Amino Acid Sequence of Human Insulin-Like Growth Factor I and Its Structural Homology with Proinsulin", Journal of Biological Chemistry, 253(8):2769-2776 (1978)
	Rinderknecht, et al., "Primary structure of human insulin-like growth factor II", FEBS Letters, 89(2):283-286 (1978)
	Jansen et al., "Sequence of cDNA encoding human insulin-like growth factor I precursor" Nature, 306:609-611 (1984)
	Bell, et al., "Sequence of a cDNA clone encoding human preproinsulin-like growth factor II", Nature, 310:775-777 (1984)
	Jansen, et al., "Nucleotide sequences of cDNAs encoding precursors of human insulin-like growth factor II (IGF-II) and an IGF-II variant", FEBS Letters, 179(2):243-246 (1985)
	Felgner et al., "Gene therapeutics", Nature, 349:351-352 (1991)
	Waldman, "Targeted homologous recombination in mammalian cells", Critical Reviews in Oncology/Hematology, 12:49-64 (1992)
	Reid et al., Guide to Electroporation and Electrofusion, Change et al., editor, Academic Press, pp. 209-225 (1992)
	Chang et al., "High efficiency gene transfection by electroporation using a radio-frequency electric field", Biochimica et Biophysica Acta, 1992(2):153-160 (1991)
	Barsoum, "LABORATORY METHODS Introduction of Stable High-Copy-Number DNA into Chinese Hamster Ovary Cells by Electroporation", DNA and Cell Biology, 9(4):293-300 (1990)
	Wang et al., "pH-sensitive immunoliposomes mediate target-cell-specific delivery and controlled expression of a foreign gene in mouse", Proc. Natl. Acad. Sci. USA, 84:7851-7855 (1987)
	Kaneda et al., "Increased Expression of DNA Cointroduced with Nuclear Protein in Adult Rat Liver", Science, 243:375-378 (1989)
	Ono et al., "Plasmid DNAs directly injected into mouse brain with lipofectin can be incorporated and expressed by brain cells, Neurosci. Lett., 117:259-263 (1990)
	Erlich et al., "Recent Advances in the Polymerase Chain Reaction", Science, 252:1643-1651 (1991)
	Sures et al., "Nucleotide sequence of human preproinsulin complementary DNA", Science, 208:57-59 (1980)
	Tani et al., "Human Liver Type Pyruvate Kinase: cDNA Cloning and Chromosomal Assignment", Biochem. Biophys. Res. Commun., 143(2):431-438 (1987)
	Miller et al., "Expression of a Retrovirus Encoding Human HPRT in Mice", Science, 225:630-632 (1984)
	Miller et al., "Redesign of Retrovirus Packaging Cell Lines to Avoid Recombination Leading to Helper Virus Production", Mol. Cell. Biol., 6(8):2895-2902 (1986)
	Dhawan et al., "Systemic delivery of human growth hormone by injection of genetically engineered myoblasts", Science, 254:1509-1512 (1991)
	Yaffe et al., Serial passaging and differentiation of myogenic cells isolated from dystrophic mouse muscle", Nature, 270:725-727 (1977)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Blau et al., "Plasticity of the Differentiated State", Science, 230:758-766 (1985)
	Stewart et al., "Transgenic Mouse Models for Insulin Dependent Diabetes: Mechanisms of β Cell Damage", Cytokine Interactions and Their Control, pp. 93-104 (1991)
	Marriot et al., "Prohormone Convertase-1 Will Process Prorelaxin, a Member of the Insulin Family of Hormones", Molecular Endocrinology, 6(9):1441-1450
	Hughes et al., "Engineering of glucose-stimulated insulin secretion and biosynthesis in non-islet cells", Proc. Natl., Acad. Sci., 89:688-692 (1992)
	Haley et al., "Porcine Relaxin: Gene Structure and Expression", J. Biol. Chem., 262(25):11940-11946 (1987)
	Schwartz et al., "A Superactive insulin: [B10-aspartic acid]insulin (human)", PNAS, Vol. 84, pp. 6408-6411 (1987)
	Thorens et al., "Cloning and Functional Expression in Bacteria of a Novel Glucose Transporter . . . ." Cell, 55:281-290 (Oct. 1988)
	Permutt et al., "Cloning and Functional Expression of a human pancreatic islet glucose-transporter cDNA", PNAS, 86:8688-8692 (Nov. 1989)
	Newgard et al., Biochem. Soc. Trans., 18(5):851-853 (1990)
	Chance, Diabetes, 21(Supp. 2): 461-467 (1972)
	Groskreutz et al., Journal of Biological Chemistry, 269:6241-6245 (1994)
	Katsoyannis et al., Biochemistry, 6:2635-2642 (1967)
	Gross et al., "Partial diversion of a mutant proinsulin (B10 aspartic acid) from the regulated to the constitutive secretory pathway in transfected AtT-20 cells", PNAS, 86:4107-4111 (June 1989)
	Lang et al., "Expression of a Hemotopoietic Growth Factor cDNA in a Factor-Dependent Cell Line Results in Autonomous Growth and Tumorigenicity", Cell, 43:531-542 (December 1985)
	Dickerson et al., "Biosynthesis and Posttranslational Processing...", Journal of Biological Chemistry, 265(5):2462-2469 (February 1990)
	Stoller et al., "The Role of Paired Basic Amino Acids...", Journal of Biological Chemistry, 264(12):6922-6928 (April 1989)
	Gomez et al., "Site-specific mutagenesis identifies amino acid residues...", EMBO J., 8(10):2911-2916 (October 1989)
	Dull et al., "Insulin-like growth factor II precursor gene organization...", Nature, 310:777-781 (August 1984)
	Thorne et al., "Expression of Mouse Pro-opiomelanocortin...", Journal of Biological Chemistry, 264(6):3545-3552 (February 1989)
✓	Bennett, H., "Biosynthetic Fate of the Amino-Terminal Fragment of Pro-opiomelanocortin Within the Intermediate Lobe of the Mouse Pituitary", Peptides, Vol.7, pp. 615-622 (July/August 1986)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

Date Mailed: June 21, 2002

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: 11669.103USW3	Application Number: 09/997,868
	Applicant: GORMAN ET AL.	
	Filing Date: NOVEMBER 28, 2001	Group Art Unit: 1647+

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
✓	Gorin, P. et al., "Experimental autoimmune model of nerve growth factor deprivation: Effects on developing peripheral sympathetic and sensory neurons", Proceedings of the National Academy of Sciences, Vol. 76, No. 10, pp.5382-5386 (October 1979)
✓	Gorman, C. et al., "The Human Cytomegalovirus Major Immediate Early Promoter Can Be *trans*-Activated by Adenovirus Early Proteins", Virology, Vol.171, No. 2, pp. 377-385 (August 1989)
✓	Furie, B. et al., "The Molecular Basis of Blood Coagulation", Cell, Vol. 53, No. 4, pp. 505-518 (May 1988)
✓	Girgis, S. et al., "Generation of DNA probes for peptides with highly degenerate codons using mixed primer PCR", Nucleic Acids Research, Vol. 16, No. 21, p. 10371 (November 1988)
✓	Hamburger, V., "The Journey of a Neuroembryologist", Annual Review of Neuroscience, Vol. 12, pp. 1-12 (1989)
✓	Kozak, M., "Point Mutations Define a Sequence Flanking the AUG Initiator Codon that Modulates Translation by Eukaryotic Ribosomes", Cell, Vol. 44, No. 2, pp. 283-292 (January 1986)
✓	Lazure, C. et al., "Proteases and posttranslational processing of prohomones: a review[1]", Canadian Journal of Biochemistry and Cell Biology, Vol. 61, No. 7, pp. 501-515 (July 1983)
✓	Liu, C-C., Initiation of translation at internal AUG codons in mammalian cells", Nature International Weekly Journal of Science, Vol. 309, No. 5963, pp. 82-85 (May 1984)
✓	Maisonpierre, P. et al., "NT-3, BDNF, and NGF in the Developing Rat Nervous System: Parallel as well as Reciprocal Patterns of Expression", Neuron, Vol. 5, No. 4, pp. 501-509 (October 1990)
✓	Rice, C. et al., "Nucleotide Sequence of Yellow Fever Virus: Implications for Flavivirus Gene Expression and Evolution", SCIENCE, Vol. 229, No. 4715, pp. 726-733 (August 1985)
✓	Rice, C. et al., "Partial N-Terminal Amino Acid Sequences of Three Nonstructural Proteins of Two Flaviviruses", Virology, Vol. 151, No. 1, pp. 1-9 (May 1986)
	Snider, W. et al., "Neurotrophic Molecules", Annals of Neurology, Vol. 26, No. 4, pp. 489-506 (October 1989)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

*Substitute Disclosure Statement Form (PTO-1449)